

ENGINEERING DOCUMENTATION

Ball Screw Linear Module Engineering Configuration

Dimensional & Integration Guide

DOCUMENT	REVISION / ISSUE	STATUS
DIG-ES-LA-S04-P02	DRAFT-08 / 29 Aug 2026	Engineering Integration Reference

Integration Overview

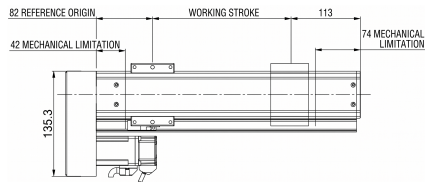
Exact ball-screw linear-module configuration for guided linear motion in automation equipment. This guide supports dimensional layout, mounting, load-path , motor and coupling integration, cable and sensor clearance, maintenance and commissioning for ES-LA-S04-P02.

Key Integration Facts

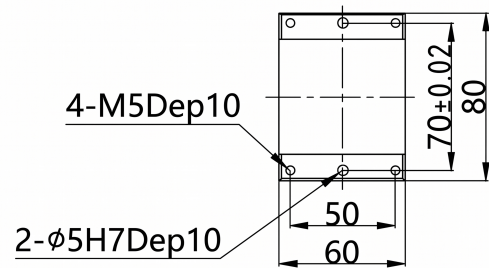
INTEGRATION ITEM	VALUE
Working Stroke	Configuration-dependent (57 records)
Overall Length	
Module Mass	
Mounting Hole Count	
Motor Mounting Style	
Configured Motor Power	200 W

Product Structure & Views

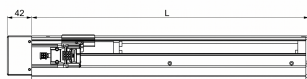
These views present the selected product structure, mounting interfaces and relevant integration geometry for this configuration.



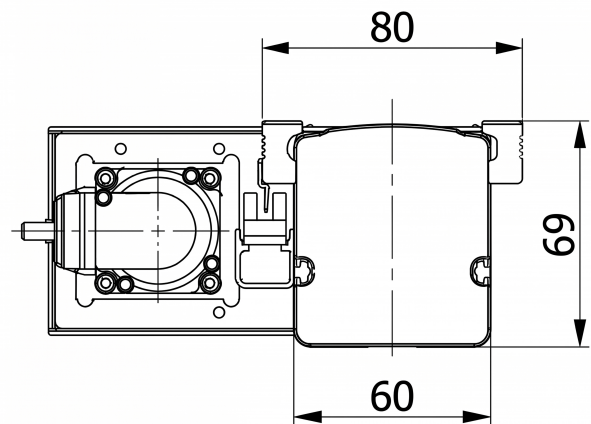
Mechanical View 1



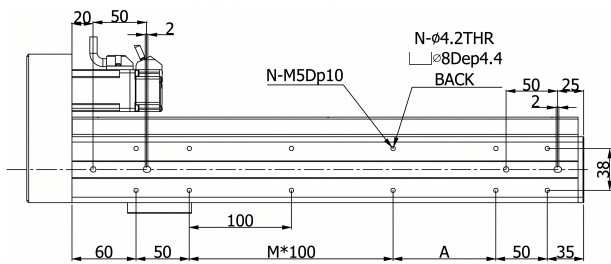
Standard Sliding rack



Mechanical View 3



Mechanical View 4



Mechanical View 5

VIEW	FIELD	VALUE
Mechanical View 1	Reference Origin Position	82 mm from reference origin
	Working Stroke	Working stroke range
	Working Stroke Length	113 mm
	Left Mechanical Limitation Position	42 mm mechanical limit
	Right Mechanical Limitation Position	74 mm mechanical limit
	Overall Height	135.3 mm
Mechanical View 2	Vertical height with tolerance	70±0.02
	Overall height	80
	M5 threaded hole specification	4-M5 Depth 10
	Mounting hole spacing	50
	Dowel pin hole specification	2-ØH7 Depth 10
	Overall width	60
Mechanical View 3	Mounting end width	42 mm
	Overall Length	L (variable, depends on model)
Mechanical View 4	Overall width	80
	Overall height	69
	Bottom width	60

VIEW	FIELD	VALUE
Mechanical View 5	Left protrusion width	20 mm
	Left connector zone length	50 mm
	Connector or shaft offset	2 mm
	Through hole specification	N holes, $\varnothing$ 2 mm through
	Counterbore hole specification	$\varnothing$ mm, depth 4.4 mm
	Threaded hole specification	N holes, M5 threaded, depth 10 mm
	Back side designation	Back side
	Right main body length	50 mm
	Right protrusion width	25 mm
	Right connector offset	2 mm
	Overall height	38 mm
	Bottom mounting hole spacing	100 mm
	Left edge distance	60 mm
	Bottom section segment length	50 mm
	Reference or variable dimension	M × 100 mm (variable)
	Datum A	Datum A
	Right section segment length	50 mm
	Right edge distance	35 mm

Configuration Dimensions

- Each row remains bound to one aggregate source configuration. Compare values by row; do not combine cells from different rows into an assumed module configuration.

Configuration Dimensions

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 01 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	283 mm	4 kg
Configuration 02 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 200 W	650 mm	833 mm	8.4 kg
Configuration 03 - Stroke: 100 mm; Motor mounting: Left Side Motor	100 mm	283 mm	4 kg
Configuration 04 - Stroke: 750 mm; Motor mounting: Left Side Motor	750 mm	933 mm	9.2 kg
Configuration 05 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 200 W	500 mm	683 mm	7.2 kg
Configuration 06 - Stroke: 700 mm; Motor mounting: Left Side Motor	700 mm	883 mm	8.8 kg
Configuration 07 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	850 mm	1041 mm	9.4 kg
Configuration 08 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 200 W	800 mm	983 mm	9.6 kg
Configuration 09 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 200 W	1000 mm	1183 mm	11.2 kg
Configuration 10 - Stroke: 150 mm; Motor mounting: Left Side Motor	150 mm	333 mm	4.4 kg
Configuration 11 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	700 mm	891 mm	8.2 kg
Configuration 12 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 200 W	450 mm	633 mm	6.8 kg
Configuration 13 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	300 mm	491 mm	5 kg
Configuration 14 - Stroke: 850 mm; Motor mounting: Left Side Motor	850 mm	1033 mm	10 kg
Configuration 15 - Stroke: 450 mm; Motor mounting: Left Side Motor	450 mm	633 mm	6.8 kg
Configuration 16 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	250 mm	441 mm	4.6 kg
Configuration 17 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	500 mm	691 mm	6.6 kg
Configuration 18 - Stroke: 500 mm; Motor mounting: Left Side Motor	500 mm	683 mm	7.2 kg
Configuration 19 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	1000 mm	1191 mm	10.6 kg
Configuration 20 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	150 mm	341 mm	3.8 kg
Configuration 21 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 200 W	150 mm	333 mm	4.4 kg

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 22 - Stroke: 250 mm; Motor mounting: Left Side Motor	250 mm	433 mm	5.2 kg
Configuration 23 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 200 W	400 mm	583 mm	6.4 kg
Configuration 24 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	400 mm	591 mm	5.8 kg
Configuration 25 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 200 W	250 mm	433 mm	5.2 kg
Configuration 26 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	550 mm	741 mm	7 kg
Configuration 27 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 200 W	900 mm	1083 mm	10.4 kg
Configuration 28 - Stroke: 350 mm; Motor mounting: Left Side Motor	350 mm	533 mm	6 kg
Configuration 29 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	950 mm	1141 mm	10.2 kg
Configuration 30 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 200 W	850 mm	1033 mm	10 kg
Configuration 31 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 200 W	550 mm	733 mm	7.6 kg
Configuration 32 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	650 mm	841 mm	7.8 kg
Configuration 33 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 200 W	300 mm	483 mm	5.6 kg
Configuration 34 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	600 mm	791 mm	7.4 kg
Configuration 35 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	800 mm	991 mm	9 kg
Configuration 36 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 200 W	700 mm	883 mm	8.8 kg
Configuration 37 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	200 mm	391 mm	4.2 kg
Configuration 38 - Stroke: 1000 mm; Motor mounting: Left Side Motor	1000 mm	1183 mm	11.2 kg
Configuration 39 - Stroke: 300 mm; Motor mounting: Left Side Motor	300 mm	483 mm	5.6 kg
Configuration 40 - Stroke: 550 mm; Motor mounting: Left Side Motor	550 mm	733 mm	7.6 kg
Configuration 41 - Stroke: 600 mm; Motor mounting: Left Side Motor	600 mm	783 mm	8 kg
Configuration 42 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 200 W	750 mm	933 mm	9.2 kg
Configuration 43 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	750 mm	941 mm	8.6 kg
Configuration 44 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 200 W	600 mm	783 mm	8 kg
Configuration 45 - Stroke: 200 mm; Motor mounting: Left Side Motor	200 mm	383 mm	4.8 kg
Configuration 46 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	900 mm	1091 mm	9.8 kg
Configuration 47 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	450 mm	641 mm	6.2 kg
Configuration 48 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 200 W	200 mm	383 mm	4.8 kg

CONFIGURATION	WORKING STROKE	OVERALL LENGTH	MODULE MASS
Configuration 49 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 200 W	950 mm	1133 mm	10.8 kg
Configuration 50 - Stroke: 950 mm; Motor mounting: Left Side Motor	950 mm	1133 mm	10.8 kg
Configuration 51 - Stroke: 650 mm; Motor mounting: Left Side Motor	650 mm	833 mm	8.4 kg
Configuration 52 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 200 W	350 mm	533 mm	6 kg
Configuration 53 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	291 mm	3.4 kg
Configuration 54 - Stroke: 800 mm; Motor mounting: Left Side Motor	800 mm	983 mm	9.6 kg
Configuration 55 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	350 mm	541 mm	5.4 kg
Configuration 56 - Stroke: 900 mm; Motor mounting: Left Side Motor	900 mm	1083 mm	10.4 kg
Configuration 57 - Stroke: 400 mm; Motor mounting: Left Side Motor	400 mm	583 mm	6.4 kg

Mounting and Drive Configuration

Mounting and Drive Configuration

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 01 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	10
Configuration 02 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	20
Configuration 03 - Stroke: 100 mm; Motor mounting: Left Side Motor	50 mm	10
Configuration 04 - Stroke: 750 mm; Motor mounting: Left Side Motor	100 mm	22
Configuration 05 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	18
Configuration 06 - Stroke: 700 mm; Motor mounting: Left Side Motor	50 mm	22
Configuration 07 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	24
Configuration 08 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	24
Configuration 09 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	28
Configuration 10 - Stroke: 150 mm; Motor mounting: Left Side Motor	100 mm	10
Configuration 11 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	22
Configuration 12 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	16
Configuration 13 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	14
Configuration 14 - Stroke: 850 mm; Motor mounting: Left Side Motor	100 mm	24
Configuration 15 - Stroke: 450 mm; Motor mounting: Left Side Motor	100 mm	16
Configuration 16 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	12
Configuration 17 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	18
Configuration 18 - Stroke: 500 mm; Motor mounting: Left Side Motor	50 mm	18
Configuration 19 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	28
Configuration 20 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	10
Configuration 21 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	10
Configuration 22 - Stroke: 250 mm; Motor mounting: Left Side Motor	100 mm	12
Configuration 23 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	16

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 24 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	16
Configuration 25 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	12
Configuration 26 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	18
Configuration 27 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	26
Configuration 28 - Stroke: 350 mm; Motor mounting: Left Side Motor	100 mm	14
Configuration 29 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	26
Configuration 30 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	24
Configuration 31 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	18
Configuration 32 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	20
Configuration 33 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	14
Configuration 34 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	20
Configuration 35 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	24
Configuration 36 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	22
Configuration 37 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	12
Configuration 38 - Stroke: 1000 mm; Motor mounting: Left Side Motor	50 mm	28
Configuration 39 - Stroke: 300 mm; Motor mounting: Left Side Motor	50 mm	14
Configuration 40 - Stroke: 550 mm; Motor mounting: Left Side Motor	100 mm	18
Configuration 41 - Stroke: 600 mm; Motor mounting: Left Side Motor	50 mm	20
Configuration 42 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	22
Configuration 43 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	22
Configuration 44 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	20
Configuration 45 - Stroke: 200 mm; Motor mounting: Left Side Motor	50 mm	12
Configuration 46 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	26
Configuration 47 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	16
Configuration 48 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 200 W	50 mm	12
Configuration 49 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	26
Configuration 50 - Stroke: 950 mm; Motor mounting: Left Side Motor	100 mm	26

CONFIGURATION	MOUNTING HOLE SPACING	MOUNTING HOLE COUNT
Configuration 51 - Stroke: 650 mm; Motor mounting: Left Side Motor	100 mm	20
Configuration 52 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 200 W	100 mm	14
Configuration 53 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	50 mm	10
Configuration 54 - Stroke: 800 mm; Motor mounting: Left Side Motor	50 mm	24
Configuration 55 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	100 mm	14
Configuration 56 - Stroke: 900 mm; Motor mounting: Left Side Motor	50 mm	26
Configuration 57 - Stroke: 400 mm; Motor mounting: Left Side Motor	50 mm	16

Motor Interface Configuration

Motor Interface Configuration

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 01 - Stroke: 100 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 02 - Stroke: 650 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 03 - Stroke: 100 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 04 - Stroke: 750 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 05 - Stroke: 500 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 06 - Stroke: 700 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 07 - Stroke: 850 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 08 - Stroke: 800 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 09 - Stroke: 1000 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 10 - Stroke: 150 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 11 - Stroke: 700 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 12 - Stroke: 450 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 13 - Stroke: 300 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 14 - Stroke: 850 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 15 - Stroke: 450 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 16 - Stroke: 250 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 17 - Stroke: 500 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 18 - Stroke: 500 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 19 - Stroke: 1000 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 20 - Stroke: 150 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 21 - Stroke: 150 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 22 - Stroke: 250 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 23 - Stroke: 400 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 24 - Stroke: 400 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 25 - Stroke: 250 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 26 - Stroke: 550 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 27 - Stroke: 900 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 28 - Stroke: 350 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 29 - Stroke: 950 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 30 - Stroke: 850 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 31 - Stroke: 550 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 32 - Stroke: 650 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 33 - Stroke: 300 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 34 - Stroke: 600 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 35 - Stroke: 800 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 36 - Stroke: 700 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 37 - Stroke: 200 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 38 - Stroke: 1000 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 39 - Stroke: 300 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 40 - Stroke: 550 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 41 - Stroke: 600 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 42 - Stroke: 750 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 43 - Stroke: 750 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 44 - Stroke: 600 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 45 - Stroke: 200 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 46 - Stroke: 900 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 47 - Stroke: 450 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 48 - Stroke: 200 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 49 - Stroke: 950 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 50 - Stroke: 950 mm; Motor mounting: Left Side Motor	Left Side Motor

CONFIGURATION	MOTOR MOUNTING STYLE
Configuration 51 - Stroke: 650 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 52 - Stroke: 350 mm; Motor mounting: Right Side Motor; Motor power: 200 W	Right Side Motor
Configuration 53 - Stroke: 100 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 54 - Stroke: 800 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 55 - Stroke: 350 mm; Motor mounting: External Direct Coupling; Motor power: 200 W	External Direct Coupling
Configuration 56 - Stroke: 900 mm; Motor mounting: Left Side Motor	Left Side Motor
Configuration 57 - Stroke: 400 mm; Motor mounting: Left Side Motor	Left Side Motor

Overall Dimensions and Mounting Interface

PARAMETER	VALUE	UNIT
Ball Screw Diameter	16	mm

- Confirm this exact SKU, the selected motor-mounting configuration and the applicable mechanical views before using dimensions or interface geometry.
- Keep mounting faces flat, clean and free of burrs, raised holes, debris and coating buildup.
- Reserve assembly, inspection, cable, lubrication and removal access around the module and motor interface.

Load Path and Installation Orientation

- Route axial force through the carriage, supported mounting structure and host guide; include offset, side load, acceleration, shock and emergency-stop cases.
- Validate horizontal, wall and vertical installation loads with the actual payload center, guide spacing, host stiffness and duty cycle.
- Control payload center of gravity and overhung moment; verify the complete installed load path rather than inferring capacity from module mass or size.

Motion and Duty-Cycle Validation

PARAMETER	VALUE	UNIT
Rated Thrust	213	N
Maximum Horizontal Payload	22	kg
Maximum Vertical Payload	7	

- Validate the complete acceleration, travel, dwell, reversal and stop cycle using the stroke and selected motor configuration.
- Establish speed, acceleration, payload and moment limits from the complete selected module, motor, guide and host calculation.
- Verify temperature and resonance behavior using the installed motor, stroke, load, mounting heat path and operating cycle.

Motor, Coupling and Sensor Integration

PARAMETER	VALUE	UNIT
Configured Motor Power	200	W

- Match the motor mounting style, adapter, configured motor power and interface dimensions before assembly.
- Verify coupling bore, engagement, concentricity, axial position and tightening controls, then check smooth travel at zero energy.
- Provide cable slack, bend radius, strain relief and sensor clearance across the complete motion envelope.

Maintenance, Contamination and Service Envelope

- Prevent chips, fibers, cleaning residue and moisture from entering the ball screw, guide, sensor and coupling interfaces.
- Provide access for lubrication, inspection, sensor adjustment, fastener verification and specified removal.
- Stop and inspect after binding, impact, abnormal noise, rising temperature, unexpected friction or protection damage.

Commissioning and Safety

- Commission in stages with the host guide, limits, guards and cable routing installed; verify each boundary before increasing speed or load.
- At low energy verify travel direction, home and limit behavior, command polarity, stroke and sensor state.
- Verify emergency stop, fault response, recovery behavior and safe holding requirements for the installed orientation.

Integration Checklist

- 01 Confirm the exact SKU, parameters and selected mechanical-view configuration.
- 02 Verify working stroke, overall length, module mass, mounting-hole count and service clearance.
- 03 Establish the complete axial, side-load and moment load path for the host structure.
- 04 Validate horizontal, wall and vertical installation cases using the actual payload center and duty cycle.
- 05 Match motor mounting style, configured motor power, adapter and coupling dimensions.
- 06 Verify coupling alignment, engagement, tightening and smooth travel before applying drive power.
- 07 Provide cable slack, bend radius, strain relief and sensor clearance across the full motion envelope.
- 08 Protect the ball screw, guide, sensors and coupling from contamination and moisture.
- 09 At low energy verify direction, home, limits, stroke, speed and fault-stop behavior.
- 10 Request current 2D, STEP, motor-interface, wiring, lubrication and maintenance data before final integration.

[View SKU Product Datasheet](#)[Request controlled 2D drawing](#)[Request controlled STEP review](#)[Request a Quote](#)

Engineering Use and Verification Notice

01. This Dimensional & Integration Guide applies only to EmbodyStack SKU ES-LA-S04-P02 and is intended for dimensional evaluation and preliminary integration. It is not a applicable manufacturing drawing, module or motor selection approval, payload or safety approval, wiring final integration, machinery risk assessment or integration planning document and must not be used as the sole basis for machining, host-structure design, coupling manufacture, fastener selection, cable assembly or final integration. Before design freeze, assembly or commissioning, verify dimensions, interface geometry, mounting holes, travel and collision envelope, load path, orientation, payload center, speed, acceleration, motor, adapter, coupling, sensors, cable routing, limits, thermal behavior, contamination control and maintenance requirements against the applicable EmbodyStack engineering data for this exact SKU and selected configuration. Where this guide and applicable product documentation differ, the applicable product documentation governs. Validate the complete module, motor, guide, host structure, motion cycle, guarding, fault cases and applicable regulatory requirements under intended operating conditions.